GLOBAL HEALTH

The NIAID research mission in infectious and allergic diseases is of global importance. When combined, these conditions are the most common causes of preventable human illness and death around the world. Recent concern about emerging and re-emerging infectious diseases and the anthrax biological weapon attacks of October 2001 further reinforced the importance of and added new dimensions to NIAID-supported research in improving early diagnosis, prevention, and control of these pathogens. Formal recognition of the importance of international research dates back to the International Health Act (1960), which gave the Secretary of Health and Human Services—formerly the Secretary of Health, Education, and Welfare—the authority to conduct research activities outside the United States, provided that the activities were beneficial to the health of U.S. citizens. This authority has been delegated to the NIH and to NIAID. The Public Health Service Act of 1988 (Public Law 100-607) created new HIV/AIDS authorities for the NIH. Subsequently, the NIH Revitalization Act (1993) gave NIAID specific authority to conduct research on tropical diseases that disproportionately affect populations in resource-poor and economically restructuring countries.

In May 2001, NIAID announced its Global Health Research Plan for HIV/AIDS, Malaria, and Tuberculosis. The Global Plan provides short-, medium-, and long-term objectives for treating, preventing, and controlling these diseases by building on the Institute's strong foundation in infectious disease research.

Intramural Research Training and Collaborative Research

NIAID laboratories located in the Bethesda/Washington metropolitan area and Hamilton, Montana, are a significant source of research training for postdoctoral non-U.S. scientists. The host NIAID laboratory usually provides the stipend for the visiting scientists. The research training experience often results in long-term intramural international collaborations once the scientists return to their home countries. In fiscal year (FY) 2003, the largest numbers of NIAID international scientists were from China, Italy, France, Japan, India, Russia, Australia, Germany, Canada, Korea, and Brazil.

NIAID laboratories become substantially involved in international research projects when these activities are essential to their research efforts. Funding ordinarily comes from the laboratory's regular budget and, for that reason, is not usually a major source of financial support. Exceptions may occur when

the intramural laboratory is part of a consortium and/or the laboratory is able to secure extra-budgetary funding.

In collaboration with the NIH National Center on Minority Health and Health Disparities, the Fogarty International Center (FIC), and the University of Maryland, NIAID's Laboratory of Parasitic Diseases developed a training program for young U.S. scientists and medical students to gain experience in an African setting. Since 1989, the NIAID Laboratory of Parasitic Diseases has been working with scientists and physicians at the National School of Medicine of Mali, located in Bamako, Mali, West Africa, to develop the Malaria Research and Training Center (MRTC). MRTC has developed into a well-equipped, highly productive facility in which the research is planned, directed, and executed by Malian staff. Funding comes from a number of U.S. and international agencies, including several NIAID-funded U.S. universities. MRTC recently dedicated a new laboratory research facility and dormitory.

Building on the experience in Mali, NIAID is developing the International Center for Excellence in Research (ICER) program, which has the objective of using longstanding intramural research to achieve long-term, sustainable collaboration and to attract extramural competitive funding. ICER projects are presently under development in India (tropical diseases), Mali (malaria), and Uganda (HIV/AIDS).

Domestic Research Awards With an International Component

NIAID funds the vast majority of its international research indirectly through competitive domestic extramural research awards that have an international component. Special emphasis programs have been developed in tropical medicine, emerging infectious diseases, HIV/AIDS, and tuberculosis to take advantage of research opportunities overseas in countries with a disproportionate burden of these diseases.

The NIAID International Centers for Tropical Disease Research (ICTDR) network is the earliest and most mature of these special programs. The ICTDR network consists of (1) Tropical Disease Research Units, which are U.S. institutions conducting multidisciplinary research relevant to the treatment, prevention, or control of tropical diseases; (2) the International Collaboration in Infectious Disease Research (ICIDR) program, which makes awards to U.S. institutions to engage in substantial international collaboration with overseas institutions in tropical medicine and emerging infectious diseases; (3) NIAID intramural laboratories active in tropical medicine and infectious disease research; (4) additional U.S. institutions with a critical mass of tropical and emerging infectious disease research; and (5) Tropical Medicine Research Centers, which provide direct funding to overseas centers of excellence. In FY 1999, NIAID formally linked the ICIDR program with the FIC Actions for Building Capacity institutional research training program.

Initiated in 1994, the NIAID Tuberculosis Prevention Research Center has operated through a research contract with Case Western Reserve University to coordinate a consortium of U.S. and international (Brazil and Uganda) institutions to conduct high-priority research projects that range from basic research to the development and evaluation of new or improved diagnostic tests, drugs, and vaccine candidates.